

01-022-N11B-7737

NSA

Orion Bus Industries



**ORIGINAL**

May 24, 2000

The Administrator  
National Highway Traffic Safety Administration  
400 Seventh Street, SW.  
Washington, DC, 20590

**Attention: VIN Coordinator**

Dear Sir/Madam,

*9 pgs  
2-sided copy*

Pursuant to the requirement under Title 49 CFR Chapter V - National Highway Traffic Safety Administration, Department of Transportation Part 565 - Vehicle Identification Number Requirements, paragraph 565.7 (d), please find attached the new VIN specification for Orion Bus Industries, a division of Western Star Trucks, Inc. located in Mississauga, Ontario, Canada, and Orion Bus Industries, Inc., A Subsidiary of Western Star Trucks Inc. located in Oriskany, New York, USA. The new VIN specification shall become effective May 1, 2000.

Should you require further information, please do not hesitate to contact the undersigned at (315) 768-8101 ext. 590, or through email at [sgornick@orionbus.com](mailto:sgornick@orionbus.com).

Yours truly,

**Orion Bus Industries Inc.  
A Subsidiary of Western Star Trucks Inc.**

Stan R. Gornick, P. Eng.  
Manager, Vehicle Safety and Compliance

*Vertical stamp: RECEIVED... 2000 JUN 1 10:46 AM... 2000 JUN 1 10:46 AM... 2000 JUN 1 10:46 AM*

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A Division of Western Star Trucks Inc.  
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Mississauga, Ontario L5J 4T8  
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A Subsidiary of Western Star Trucks Inc.  
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Orion Parts - Canada  
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<b>PREPARED BY:</b>	Stan Gornick	<b>TITLE:</b>	Compliance Manager
<b>APPROVED BY:</b>	Stan Gornick	<b>TITLE:</b>	Compliance Manager

## ORION BUS INDUSTRIES VEHICLE IDENTIFICATION NUMBER SPECIFICATION

### 1.0 SCOPE

The following document details the Vehicle Identification Number (VIN) specification for all buses manufactured by Orion Bus Industries, a division of Western Star Trucks, Inc. in Mississauga, Ontario, Canada, and Orion Bus Industries, Inc., in Oriskany, New York, U.S.A., herein referred to as OBI.

### 2.0 GENERAL

OBI VINs are established in accordance with the U.S. Code of Federal Regulations, Title 49 CFR Part 565 and the Canadian Motor Vehicle Safety Regulations, Standard 115.

Each vehicle shall have a unique VIN and the identification numbers of any two vehicles manufactured by OBI within a thirty year period shall not be identical.

As per the regulations, each VIN shall consist of seventeen (17) characters. The significance of each character is described in sections 3 and 4 of this report. A valid character must occupy all spaces provided for in the VIN. A valid character is defined as:

- one of the letters in the set: [ABCDEFGHJKLMNPRSTUVWXYZ];
- or a number in the set: [0123456789].

The VIN of each vehicle shall:

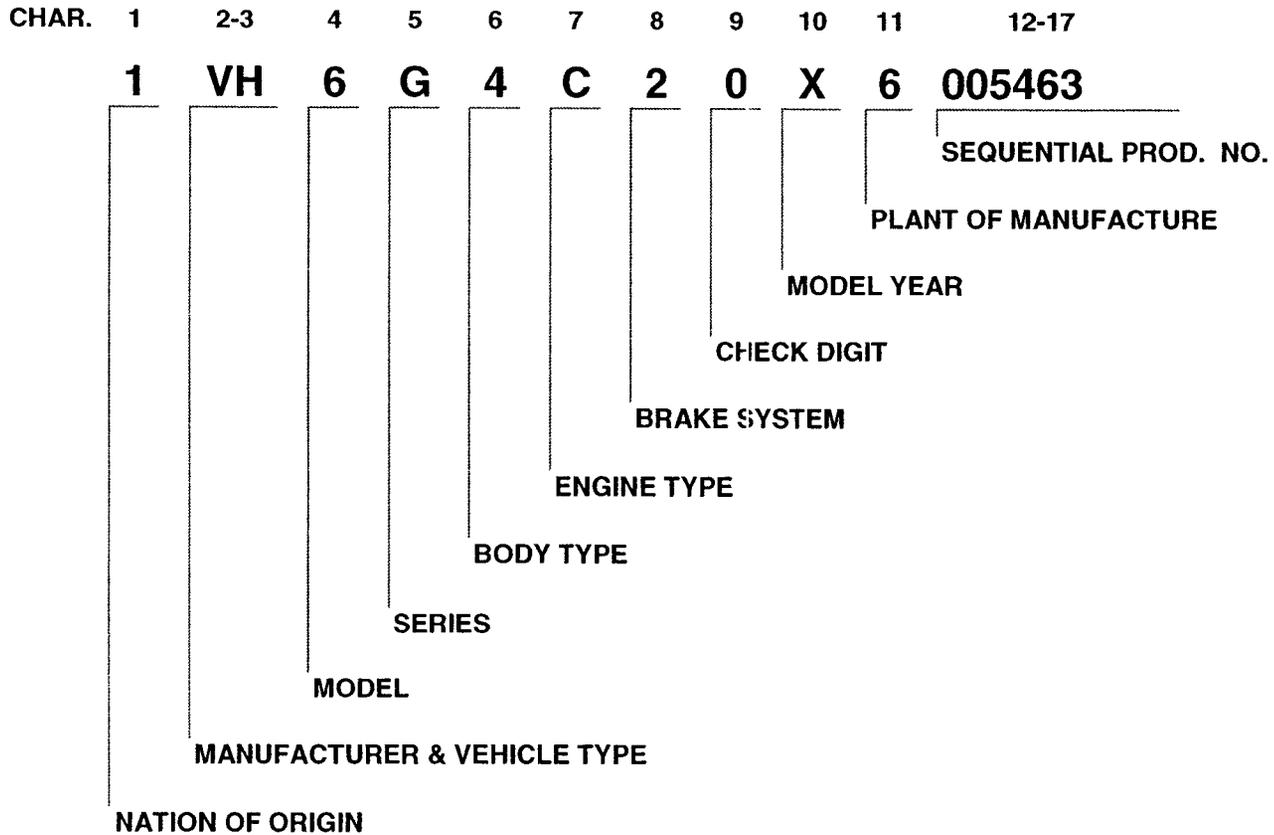
- (a) be composed of capital, sanserif characters, having a minimum height of 2 mm;
- (b) be sunk into, embossed on or imprinted, clearly and indelibly, in a color that contrasts with the background color of the label, on
  - (i) any part of the vehicle that is not designed to be removed except for repair, other than glazing, or
  - (ii) a separate plate or label that is permanently affixed to a part referred to in subparagraph (i);
- (c) be difficult to remove, replace or alter without detection.



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### 3.0 OBI VIN OVERVIEW

Figure 1, shown below, provides a simplified example of an OBI VIN.



**Figure 1: Example of an OBI VIN**

An interpretation of the above VIN code reveals that the vehicle:

- 1) originated in the USA;
- 2-3) was manufactured by Orion Bus Industries, Inc. (USA), and the vehicle is a bus;
- 4) is an Orion VI model;
- 5) is 40 feet long by 96 inches wide;
- 6) has front, middle and rear doors;
- 7) has a Detroit Diesel Series 50G, compressed natural gas, 4 cylinder engine, with a displacement of 519 in.<sup>3</sup> (8.5 L) and a rating of 275 bhp @ 2100 rpm;
- 8) has compressed air, drum type, anti-lock devices installed on both axles and a rear axle spring park brake;
- 9) has check digit 0;
- 10) was manufactured in 1999;
- 11) was manufactured in Oriskany, New York, USA; and
- 12-17) has the sequential product number: 005463.



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#### 4.0 OBI VIN SPECIFICATION

##### 4.1 First Character

NATION OF ORIGIN	CODE						
	1999	2000	2001	2002	2003	2004	2005
USA	1	1	1	1	1	1	1
CANADA	2	2	2	2	2	2	2

##### 4.2 Second and Third Character

MANUFACTURER & VEHICLE TYPE	CODE						
	1999	2000	2001	2002	2003	2004	2005
ORION BUS INDUSTRIES, A DIVISION OF WESTERN STAR TRUCKS, INC. (CANADA) – BUS	B1	B1	---	---	---	---	---
ORION BUS INDUSTRIES, A DIVISION OF WESTERN STAR TRUCKS, INC. (CANADA) – MPV	BA	BA	---	---	---	---	---
ORION BUS INDUSTRIES, INC. (USA) – BUS	VH	VH	---	---	---	---	---

##### 4.3 Fourth Character

MODEL	CODE						
	1999	2000	2001	2002	2003	2004	2005
ORION II	2	2	---	---	---	---	---
HYBRID ELECTRIC	3	3	---	---	---	---	---
ORION V	5	5	---	---	---	---	---
ORION VI	6	6	---	---	---	---	---
ORION VII	---	7	---	---	---	---	---



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<b>APPROVED BY:</b>	Stan Gornick	<b>TITLE:</b>	Compliance Manager

**4.4 Fifth Character**

SERIES	CODE						
	1999	2000	2001	2002	2003	2004	2005
21 x 96 (21 FEET LONG, 96 INCHES WIDE)	A	A	---	---	---	---	---
26 x 96 (26 FEET LONG, 96 INCHES WIDE)	B	B	---	---	---	---	---
30 x 96 (30 FEET LONG, 96 INCHES WIDE)	C	C	---	---	---	---	---
30 x 102 (30 FEET LONG, 102 INCHES WIDE)	D	D	---	---	---	---	---
35 x 96 (35 FEET LONG, 96 INCHES WIDE)	E	E	---	---	---	---	---
35 x 102 (35 FEET LONG, 102 INCHES WIDE)	F	F	---	---	---	---	---
40 x 96 (40 FEET LONG, 96 INCHES WIDE)	G	G	---	---	---	---	---
40 x 102 (40 FEET LONG, 102 INCHES WIDE)	H	H	---	---	---	---	---

**Notes**

1. The above lengths and widths are nominal overall body dimensions exclusive of exterior mirrors, side marker and signal lamps, flexible portions of bumpers, rubrails, and flexible fender skirts.
2. The code is not related to the number of passengers as this is an option of the customer within any of the above given sizes and is not used within OBI to denote series.

**4.5 Sixth Character**

BODY TYPE	CODE							
	1999	2000	2001	2002	2003	2004	2005	
FRONT DOOR ONLY - ORION II	1	1	---	---	---	---	---	02
FRONT AND MIDDLE DOORS	2	2	---	---	---	---	---	
FRONT AND REAR SIDE DOORS	3	3	---	---	---	---	---	
FRONT, MIDDLE AND REAR DOORS	4	4	---	---	---	---	---	
FRONT AND REAR BACK DOORS	5	5	---	---	---	---	---	
FRONT DOOR ONLY - SUBURBAN COACH	---	6	---	---	---	---	---	02



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APPROVED BY:	Stan Gornick	TITLE:	Compliance Manager

4.6 Seventh Character

ENGINE TYPE	CODE						
	1999	2000	2001	2002	2003	2004	2005
DETROIT DIESEL MODEL: SERIES 50, 6047-MK28 DIESEL FUEL No. 1 No. CYLINDERS: 4 DISPLACEMENT: 519 in. <sup>3</sup> (8.5 L) RATING: 275 BHP @ 2100 RPM	A	A	---	---	---	---	---
DETROIT DIESEL MODEL: SERIES 50, 6047-MK28 DIESEL FUEL No. 2 No. CYLINDERS: 4 DISPLACEMENT: 519 in. <sup>3</sup> (8.5 L) RATING: 275 BHP @ 2100 RPM	B	B	---	---	---	---	---
DETROIT DIESEL MODEL: SERIES 50G, 6047-TKG8 COMPRESSED NATURAL GAS No. CYLINDERS: 4 DISPLACEMENT: 519 in. <sup>3</sup> (8.5 L) RATING: 275 BHP @ 2100 RPM	C	C	---	---	---	---	---
CUMMINS ENGINE COMPANY, INC. MODEL: ISB 175 DIESEL FUEL No. 2 No. CYLINDERS: 6 DISPLACEMENT: 359 in. <sup>3</sup> (5.9 L) RATING: 175 BHP @ 2500 RPM	D	D	---	---	---	---	---
CUMMINS ENGINE COMPANY, INC. MODEL: B5.9-195G COMPRESSED NATURAL GAS No. CYLINDERS: 6 DISPLACEMENT: 359 in. <sup>3</sup> (5.88 L) RATING: 195 BHP @ 2800 RPM	E	E	---	---	---	---	---
CUMMINS ENGINE COMPANY, INC. MODEL: L10-280G COMPRESSED NATURAL GAS No. CYLINDERS: 6 DISPLACEMENT: 611 in. <sup>3</sup> (10 L) RATING: 280 BHP @ 2100 RPM	F	F	---	---	---	---	---

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APPROVED BY:	Stan Gornick	TITLE:	Compliance Manager

Seventh Character (continued)...

ENGINE TYPE	CODE						
	1999	2000	2001	2002	2003	2004	2005
CUMMINS ENGINE COMPANY, INC. MODEL: ISM 330 DIESEL FUEL No. 1 or 2 No. CYLINDERS: 6 DISPLACEMENT: 661 in. <sup>3</sup> (10.8 L) RATING: 330 BHP @ 2100 RPM	G	G	---	---	---	---	---
CUMMINS ENGINE COMPANY, INC. MODEL: ISM 280 DIESEL FUEL No. 1 or 2 No. CYLINDERS: 6 DISPLACEMENT: 661 in. <sup>3</sup> (10.8 L) RATING: 280 BHP @ 2100 RPM	H	H	---	---	---	---	---
DETROIT DIESEL SERIES 30 MODEL: T-444-E (A230C)   H.T. DIESEL FUEL No. 1 No. CYLINDERS: 8 DISPLACEMENT: 444 in. <sup>3</sup> (7.3 L) RATING: 230 BHP @ 2300 RPM (USED IN HYBRID ELECTRIC BUS)	J	J	---	---	---	---	---
CUMMINS ENGINE COMPANY, INC. MODEL: ISC 280 DIESEL FUEL No. 1 or 2 No. CYLINDERS: 6 DISPLACEMENT: 661 in. <sup>3</sup> (10.8 L) RATING: 280 BHP @ 2200 RPM	---	K	---	---	---	---	---
JOHN DEERE MODEL: 6081 COMPRESSED NATURAL GAS No. CYLINDERS: 6 DISPLACEMENT: 494 in. <sup>3</sup> (8.1 L) RATING: 280 BHP @ 2200 RPM	---	L	---	---	---	---	---

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<b>APPROVED BY:</b>	Stan Gornick	<b>TITLE:</b>	Compliance Manager

**4.7 Eighth Character**

BRAKE SYSTEM	CODE						
	1999	2000	2001	2002	2003	2004	2005
COMPRESSED AIR, DRUM TYPE, NO ANTI-LOCK DEVICES INSTALLED, REAR AXLE SPRING PARK BRAKE.	1	1	---	---	---	---	---
COMPRESSED AIR, DRUM TYPE, ANTI-LOCK DEVICES INSTALLED ON BOTH AXLES, REAR AXLE SPRING PARK BRAKE.	2	2	---	---	---	---	---
COMPRESSED AIR, FRONT DISC AND REAR DRUMS, NO ANTI-LOCK DEVICES INSTALLED, REAR AXLE SPRING PARK BRAKE.	3	3	---	---	---	---	---
COMPRESSED AIR, FRONT DISC AND REAR DRUMS, ANTI-LOCK DEVICES INSTALLED ON BOTH AXLES, REAR AXLE SPRING PARK BRAKE.	4	4	---	---	---	---	---
COMPRESSED AIR, FRONT & REAR DISC, ANTI-LOCK DEVICES INSTALLED ON BOTH AXLES, REAR AXLE SPRING PARK BRAKE.	---	5	---	---	---	---	---

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**4.8 Ninth Character**

CHECK DIGIT	CODE						
	1999	2000	2001	2002	2003	2004	2005
AS CALCULATED	---	---	---	---	---	---	---

**4.9 Tenth Character**

MODEL YEAR	CODE						
	1999	2000	2001	2002	2003	2004	2005
DATE CODE	X	Y	1	2	3	4	5

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APPROVED BY:	Stan Gornick	TITLE: Compliance Manager

**4.10 Eleventh Character**

PLANT OF MANUFACTURE	CODE						
	1999	2000	2001	2002	2003	2004	2005
MISSISSAUGA, ONTARIO, CANADA	5	5	---	---	---	---	---
ORISKANY, NEW YORK, USA	6	6	---	---	---	---	---

**4.11 Twelfth Through Seventeenth Characters**

SEQUENTIAL PROD. NO.	CODE						
	1999	2000	2001	2002	2003	2004	2005
AS REQUIRED	---	---	---	---	---	---	---

- Revision 02** - Section 4.5 - added Coach (6) and updated description (1)  
- Section 4.6 - added 2 new engines (J) & (L)  
- Section 4.7 - added front and rear disc brakes (5)